

• applying the aqueous solution to the bed of crystalline metallic ore particles substantially near the bottom of the bed at a rate sufficient to form and maintain a fluidized bed of crystalline metallic ore particles,

wherein the fat-soluble compound is absorbed or adsorbed by the crystalline metallic ore particles to form crystalline-metallic-ore-fat-soluble-compound complex particles,

wherein the bulk density of the particulate crystalline-metallic-ore-fat-soluble-compound complex is less than that of the particulate metallic ore, and

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wherein the fluidized bed forms an upper and a lower zone, the lower zone substantially comprising crystalline metallic ore particles and the upper zone substantially comprising crystalline-metallic-ore-fat-soluble-compound complex particles;

• collecting the crystalline-metallic-ore-fat-soluble-compound complex particles from the upper zone of the fluidized bed;

• providing a wash solution;

• contacting the wash solution with the crystalline-metallic-ore-fat-soluble-compound complex particles to desorb the fat-soluble compound;

• collecting the wash solution containing the fat-soluble compound; and

isolating the fat-soluble compound from the wash solution.

--17. (new) The method as claimed in claim 16, wherein the crystalline metallic ore particles are magnetite particles.

--18. (new) The method as claimed in claim 16, wherein the crystalline-metallic-ore-fat-soluble-compound complex is collected by means of continuous decantation.

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--19. (new) The method as claimed in claim 16, wherein the crystalline-metallic-ore-fat-soluble-compound complex particles are dried and stored for a period prior to being contacted with the wash solution.

--20. (new) A method as claimed in claim 16, wherein the fat-soluble compound is present in the aqueous solution with a number of cells and the aqueous solution is a culture media.

--21. (new) A method as claimed in claim 20, wherein the cells are those of *Dunaliella salina*.

--22. (new) A method as claimed in claim 16, wherein the fat-soluble compound is a natural pigment.